Heat Stress Card
Fluid Replacement Guidelines for Warm Weather Training Conditions

Acclimated after approx. two weeks training wearing ACUs

High Risk for Heat Illness:

- ❑ **Not acclimatized** to heat
- ❖ need 10-14 days to become adequately acclimated!!
- ❑ Poor fitness
- ❑ Exceeds Body Fat Standard
- ❑ Cumulative inadequate hydration (day to day)
- ❑ Minor illness (cold symptoms, sore throat, low grade fever)
- ❑ Taking drugs/supplements/dietary aids, ex: allergy or cold remedies, Ephedra supplement
- ❑ Use of alcohol in the last 24 hours
- ❑ Prior history of heat illness (any heat stroke, or >2 episodes of heat exhaustion)
- ❑ Skin disorders such as heat rash and sun burn which prevent effective sweating
- ❑ Age > 40 years

The more factors, the higher the risk!!

Do:

Maintain the buddy system to look out for each other.

Observe soldiers drinking water in required amounts not to exceed 1½ quarts per hour or 12 quarts per day.

Ensure adherence to work-rest cycle in

Easy Work	Moderate Work	Hard Work
• Weapon Maintenance • Walking Hard Surface at 2.5 mph, < 30 lb Load • Marksmanship Training • Drill and Ceremony	• Walking Loose Sand at 2.5 mph, No Load • Walking Hard Surface at 3.5 mph, < 40 lb Load • Calisthenics • Patrolling • Individual Movement Techniques, i.e. Low Crawl, High Crawl, etc.	• Walking Hard Surface at 3.5 mph, ≥ 40 lb Load • Walking Loose Sand at 2.5 mph with Load • Field Assaults

- The work-rest times and fluid replacement volumes will sustain performance and hydration for at least 4 hours of work in the specified heat category. Fluid needs can vary based on individual differences (± ¼ qt/h) and exposure to full sun or full shade (± ¼ qt/h).
- **NL** = no limit to work time per hour.
- **Rest** means minimal physical activity (sitting or standing), accomplished in shade if possible.

- ***CAUTION: Hourly fluid intake should not exceed 1½ quarts.***

  Daily fluid intake should not exceed 12 quarts.
- If wearing body armor add **5°F** to WBGT in humid climates.
- If wearing NBC clothing (MOPP 4) add **10°F** to WBGT.

Heat Category	WBGT Index, F°	Easy Work		Moderate Work		Hard Work	
		Work/ Rest	*Water Intake (Qt/H)*	*Work/ Rest*	*Water Intake (Qt/H)*	*Work/ Rest*	*Water Intake (Qt/H)*
1	78° - 81.9°	NL	½	NL	¾	40/20 min	¾
2 (GREEN)	82° - 84.9°	NL	½	50/10 min	¾	30/30 min	1
3 (YELLOW)	85° - 87.9°	NL	¾	40/20 min	¾	30/30 min	1
4 (RED)	88° - 89.9°	NL	¾	30/30 min	¾	20/40 min	1
5 (BLACK)	> 90°	50/10 min	1	20/40 min	1	10/50 min	1

Warning Signs and Symptoms of Heat Stress

With any of the below symptoms or signs, immediately call for medical evaluation by a 68W (Medic). If 68W is not immediately available, call for Medevac or ambulance.

INDICATIONS OF POSSIBLE HEAT ILLNESS

MORE COMMON SIGNS / SYMPTOMS

- Dizziness
- Headache
- Dry mouth
- Nausea
- Unsteady walk
- Weakness
- Muscle cramps

IMMEDIATE ACTIONS

- Remove from training
- Allow casualty to rest in shade
- Take sips of water
- While doing the above, call for Medic evaluation of the soldier (Medic will monitor temperature and check for mental confusion)
- If no medic is available call for ambulance or Medevac

SERIOUS SIGNS/ SYMPTOMS

- Hot body, high temperature
- Confusion (Do Mental Status Assessment)
- Vomiting
- Involuntary bowel movement
- Convulsions
- Weak or rapid pulse
- Unresponsiveness, coma

Immediately call Medevac or ambulance for emergent transport while doing the following:

- Lay person down in shade with feet elevated until Medevac or ambulance arrives
- Undress as much as possible
- Pour cool water over person and fan
- Give **sips** of water while awaiting ambulance (if conscious)
- Monitor airway and breathing until ambulance or Medevac arrive

MENTAL STATUS ASSESSMENT

A sign that the soldier is in a serious life-threatening condition is the presence of mental confusion (with or without increased temperature). Anyone can do a mental status assessment asking some simple questions:

Call for emergency Medevac or ambulance if any of the following exist:

What is your name?
(Does not know their name.)

What month is it? What year is it?
(Does not know the month or year.)

Where are we/you?
(Does not know the place where they are at.)

What were you doing before you became ill?
(Does not know the events that led to the present situation.)

see http://chppm-www.apea.army.mil/heat for electronic versions of this document and other heat injury prevention resources.